SPECIFICATION FOR APPROVAL
(Product Recognition)

Product name: WIFI antenna

Product model (original model): UB01C60F2D3697A

Customer's "Material Name": WIFI Antenna _ UB01C60F2D3697A

Customer's "Specification Model": Frequency: 2.4 GHZ_ Built-in _ FPC Antenna _ Black Coaxial Line with Terminal Length L=60mm ±3mm_ROHS

Customer's "Material Code":

Resume of changes:

Serial number	Content before change	Content after change	Date of change	Version	Page number	Responsible person
0	First edition	First edition	2023-2-22	A0	11	Eddy

Name of supplier: Dongguan Youbi Electronics Co., Ltd.		
Supplier's address: Building 79, New Sun Industrial City, No.9 Xinfa Road, Lincun, Tangxia Town, Dongguan City		
Tel: 0769-81777126	**Fax: 0769-81777126**	**Email: zq@ub-rf.com**
(Signed by the Supplier)		
Responsible person/date	**Review/Date**	**Approval/Date**

This acknowledgement includes the following contents: (one is indispensable)

1. Cover
2. Parameter Specification ,
3. Structure Dimension Drawing ,
4. BOM Table ,
5. Packaging Drawing
6. Production Process Flow Table
7. Certification and Testing Status

Customer name: Shenzhen Oni Electronics Co., Ltd.			
Judgment result of buyer (customer):-qualified -Unqualified			
Buyer (customer) acknowledges (please mark back the whole acknowledgement bookmark after confirmation)			
Development Design Engr/Date	**SQE Engr/Date**	**Head of Purchasing Department/Date**	**Approval by Development Manager/Date**

II. Parameter Specification

1. Electrical performance parameters (fill in instructions: the relevant parameters of electrical performance must specify the unit, tolerance and conditions)

Sequence No.	Project	Parameter specification	Test conditions
1	Frequency (MHz)	2400-2500	Microwave anechoic chamber
2	Gain test	≥ 1 dBi, ≤ 3 dBi	Microwave anechoic chamber
3	Efficiency test	≥ 40%, ≤ 70%	Microwave anechoic chamber
4	Center frequency characteristic impedance (Ω)	50	Network analyzer

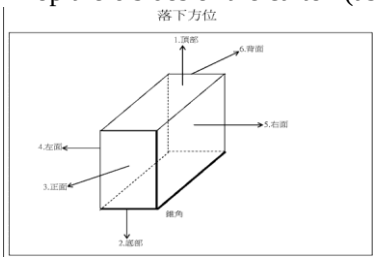
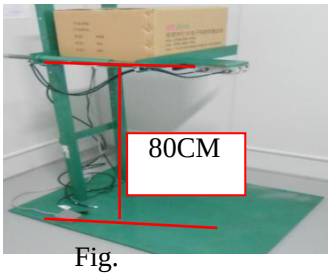
2. Mechanical performance parameters (fill in instructions: the relevant parameters of mechanical and physical properties must specify the unit, tolerance and conditions)

Sequence No.	Project	Parameter specification	Test conditions
1	Wire length	60 ± 3 (mm)	Measured with a steel ruler, the length and dimension are 60 ± 3 (mm) OK, and vice versa, NG.
2	FPC length	39.8 ± 0.3 (mm)	Measured with a digital caliper, the length dimension is 39.8 ± 0.3 (mm) The inside is OK, and the opposite is NG.
3	FPC width	14.4 ± 0.3 (mm)	Measured with a digital caliper, the width dimension is 14.4 ± 0.3 (mm) The inside is OK, and the opposite is NG.

3. Reliability test (fill in instructions: the relevant requirements of reliability test must specify the items, conditions and judgment criteria)

Sequence No.	Project	Test conditions	Standard requirements
1	Salt spray test	Test specification: Test temperature: 35 ℃, salt solution concentration: 5% (the standard PH value of salt solution after modulation and cooling is between 6.5 and 7.2), average salt solution collection amount: 1.0 ~ 2.0 (ml/hr), test time: 48 hours (terminal)/8H (wire) Experimental method: Inject the prepared brine into the test liquid storage bucket, and test the object Place it on the test rack, then close the test cover and pour water into the sealed groove until there is no void. After 48H/8H test, if there is no oxidation on the surface of the product, it will be OK, otherwise it will be NG.	After 48H/8H, there is no oxidation on the surface of the product, and the electrical test is OK.

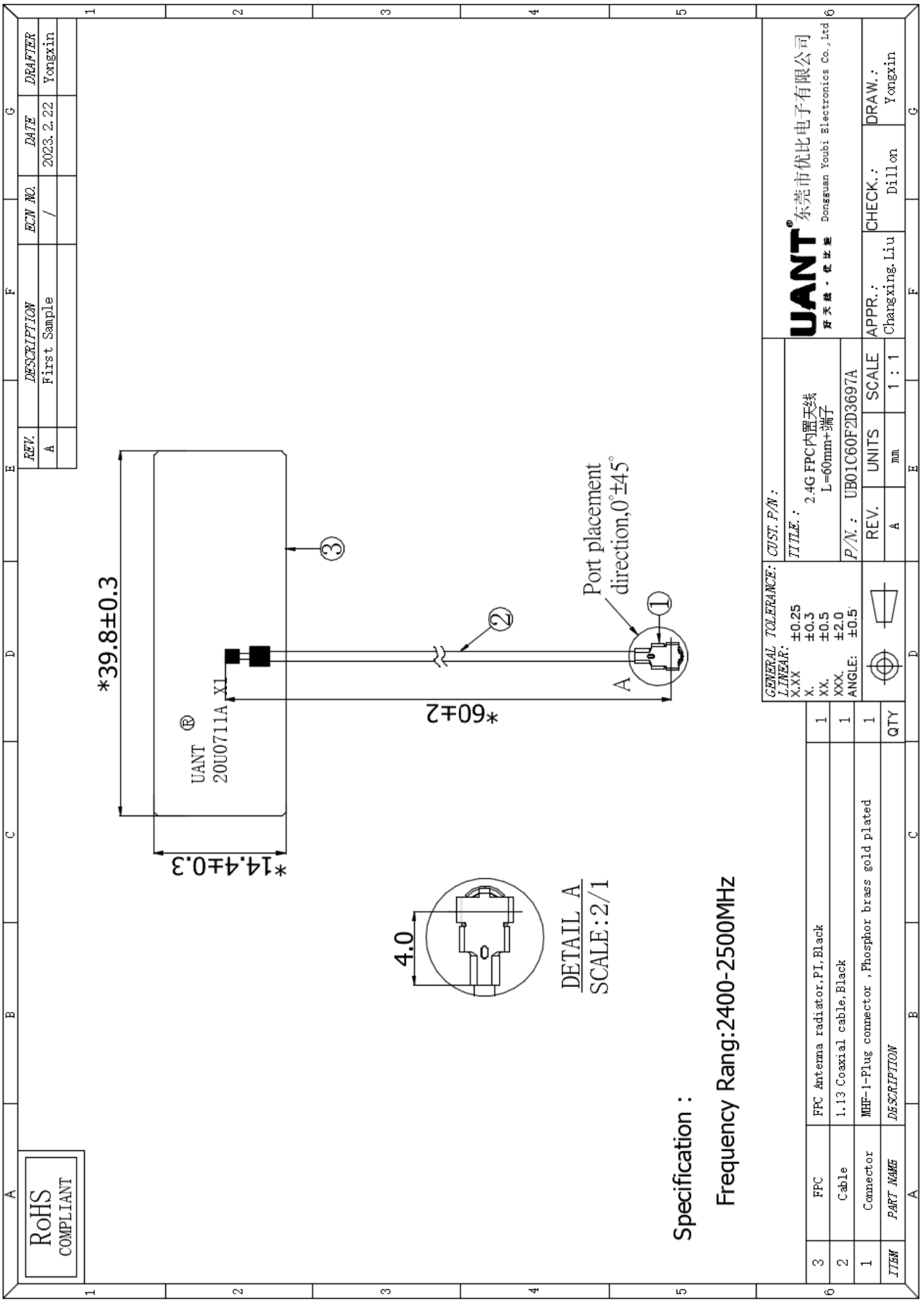
2	Terminal tension test	Test method: Adjust the height of the upper and lower cross arms to make the clamp spacing appropriate; Clamp the upper end of the test piece with an upper fixture, and press the return-to-zero button to return the pointer to zero; Press the tensiometer pointer lock switch; Clamping the lower end of the specimen with a lower fixture; Spin Turn the handwheel to lower the lower cross arm to stretch the specimen;	If the tension value ⩾ 1KG is read from the tension meter, it will be judged as OK, otherwise it will be NG.
3	Terminal pull force test	Test method: buckle the terminal into the terminal seat, shake the handwheel to move the clamping jaw of the pulling force test fixture to a suitable position; Open the gripper and hook the back of the terminal. Return the pointer to zero and shake the handwheel to start the test.	If the tension value read from the tension meter is in the range of 0.8-1.5 KG, it will be judged as OK, otherwise it will be NG.

4	Drop test	Test conditions: 1. Drop the 6 sides of the carton (as shown in Figure 1)  Figure I 2. The product is 80 CM away from the floor steel plate (as sh own in Figure 2)  Fig. 2 Test method: 1. Fix the packing box to be tested on the product bracket to fi x and clamp the test sample, and the clamping force should be appropriate to avoid clamping the tested sample. 2. Adjust the falling height by 80CM. 3. First, turn on the main power switch and turn on the trachea. 4. After the work is finished, disconnect the trachea and power s witch and take off the sample.	1. After testing, the packing b ox shall not be obviously da maged. 2. Inspect the product after tes ting, Electrical property & there m ust be no defects after extern al inspection.

7 Coaxial material appendix

RG、细微射频同轴电缆	RF-1.13/50Ω		
结构图 Structure drawing		 	
结构特性 Structure characteristics			
结构 Structure	项目 Item	标准值 Standard value	
①内导体 Inner conductor	材料 Material	镀银铜线 Silverplated copper wire Tinned copper wire	/镀锡铜线
	(绞合)标称外径(mm) (Intertwist)NOM.O.D.(mm)	0.24±0.02	
②绝缘层 Insulation	材料 Material	聚全氟乙丙烯 FEP PE	/聚乙烯
	标称外径(mm) NOM.O.D.(mm)	0.7±0.03	
③外导体 Outer conductor	材料 Material	镀银铜线 Silverplated copper wire Tinned copper wire	/镀锡铜线
	标称外径(mm) NOM.O.D.(mm)	0.92±0.05	
	覆盖率(%) Coverage ratio(%)	90±5	
④护套层 Jacket	材料 Material	聚全氟乙丙烯 FEP PE	/聚乙烯
	颜色 Color	黑 Black	
	标称外径(mm) NOM.O.D.(mm)	1.13±0.05	

III. Structural Dimension Draw

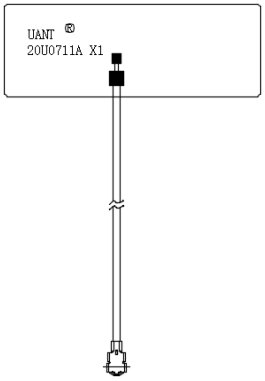


IV. BOM (Bill of Material

Sequence No.	Component material name	Material	Specification/model	Brand	Name of Supplier	Dosage
1	FPC	PI	39.8 mm long * 14.4 mm wide	\	QG	1PCS
2	Terminal	Phosphorus copper gold plating	1.13 Generation Terminal	\	CM	1PCS
3	Wire rod	FEP/silver-plated copper	RF-1.13	\	SY	1PCS
4	PE bag	PE	Choose suitable specifications	\	Pond dragon	1/200PCS
5	Carton	\	Choose suitable specifications	\	Jiulongda	/

V. Packaging drawing (filling in instructions: the inserted pictures must be clearly visible)

1. Packaging photo (picture):

1. Photos or pictures of individual material packging	2. Photos or pictures placed on a single layer of inner packaging
 Remarks:	 Remarks:
3. Photos or pictures of the outer packaging	4. Anti-counterfeiting mark of supplier's material packaging
 Remarks:	aoni奥尼 装箱清单 供方名称 东莞优比电子有限公司 商 标 UB 合同单号 数 量 物料名称 颜 色 物料编码 检验员 生产班组 领 班 原料名称 日 期 Remarks:

Supplier Material Coding Rules: General Process Product Coding Rules:

UB + 01 + C + 60 + F + 2D + 3697 + A

(1) (2) (3) (4) (5) (6) (8) 1. UB stands for antenna products;

2. Classification of finished products: 01 is the terminal built-in class;

3. Connection mode code: C is outgoing wire connection;

4.60 for wire length

5. Material and color description: F stands for FPC;;

IV. BOM (Bill of Material

6. Gain description: gain digital + D (DBi);
7. Serial number: 1 to 999999999;
8. Version number: A version code is A.

VII. Certification Test Status (Fill in the instructions: If relevant test certification is done, please tick in brackets and indicate the corresponding certification or report number)

() UL certification or report number:_____

（）**VDE** Certification or report number:_____

（）**CE** Certification or report number:_____

（）**FCC** Certification or report number:_____

ROHS Certification or report number: A2220006213101E

（）**REACH** Certification or report number:

（）**EMC** Certification or report number:_____

（）**CCC** Certification or report number:_____

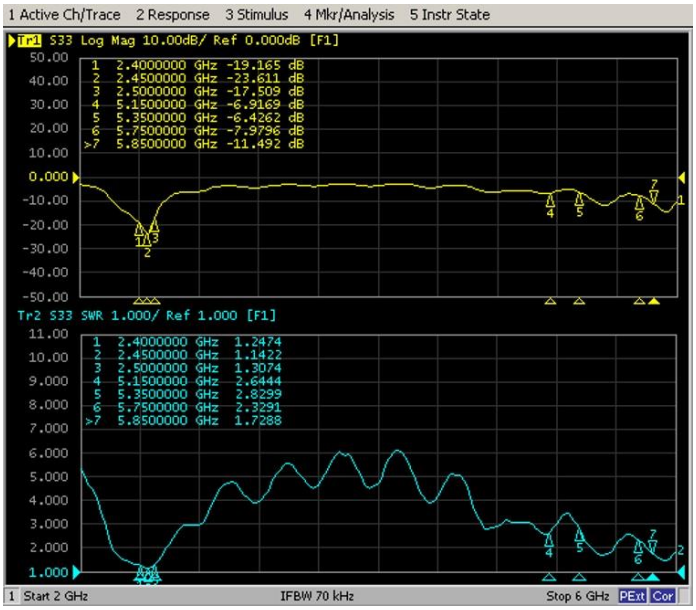
（）**SRRC** Certification or report number:_____

() Other certification or report number:_____

() No product certification

1. S Parameter

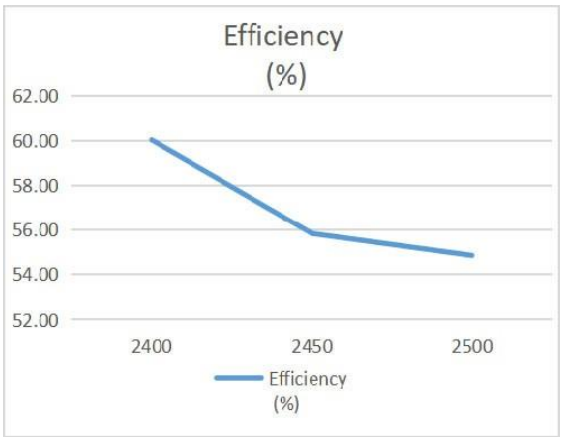
Frequency (MHz)	Return Loss(dB)	VSWR
2400	-19.16	1.24
2450	-23.61	1.14
2500	-17.50	1.30

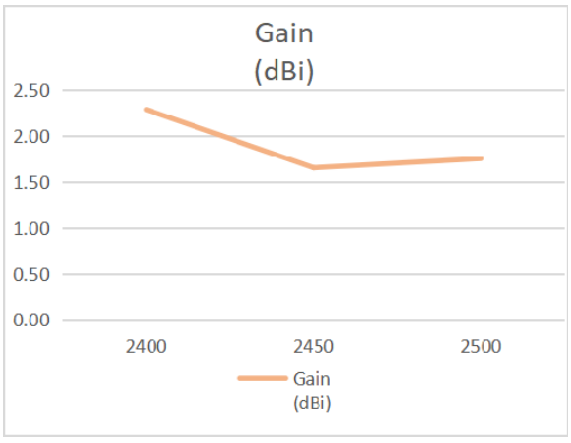


* Voltage Standing Wave Ratio(VSWR) Return Loss(RL) RL=20*log10[(VSWR+1)/(VSWR-1)

2. Efficiency and Gain

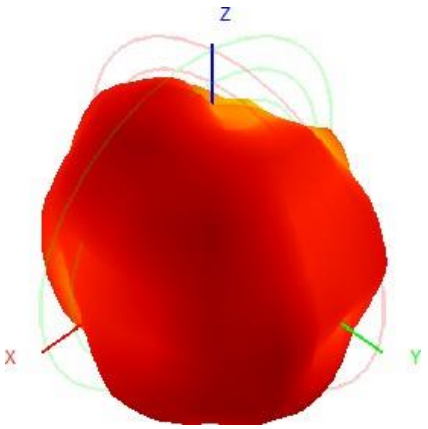
Frequency (MHz)	2400	2450	2500
Efficiency (%)	60.05	55.84	54.85
Gain (dBi)	2.29	1.66	1.76



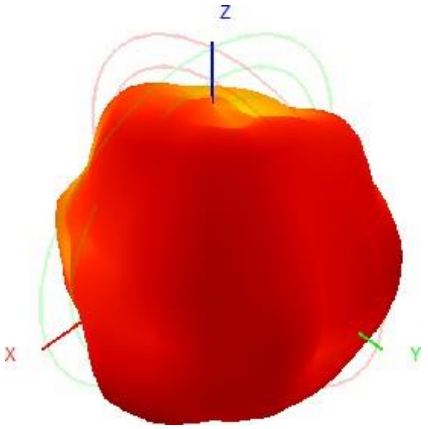


3. Radiation Pattern

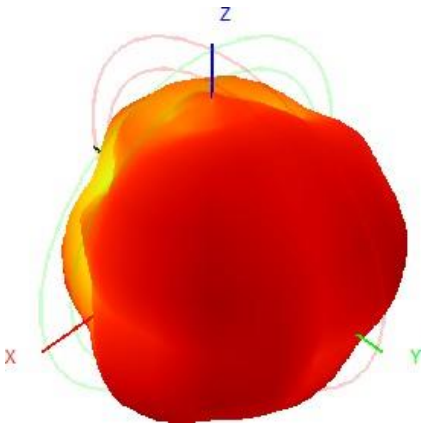
3-1 Antenna 3D Radiation Pattern



2400MHz

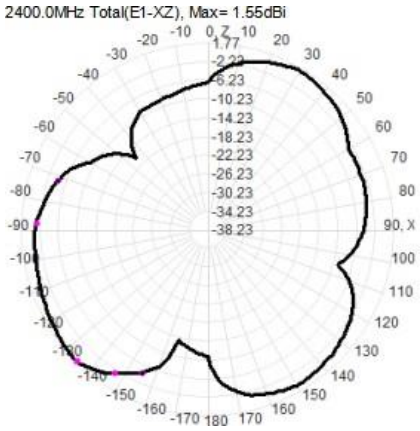


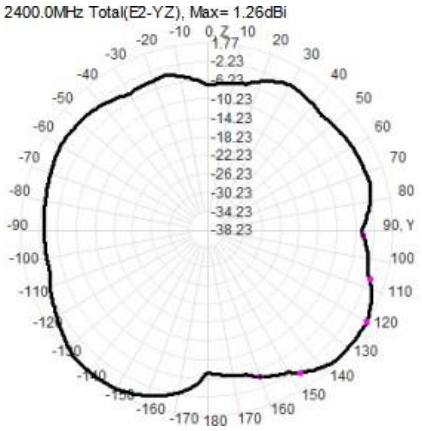
2450MHz

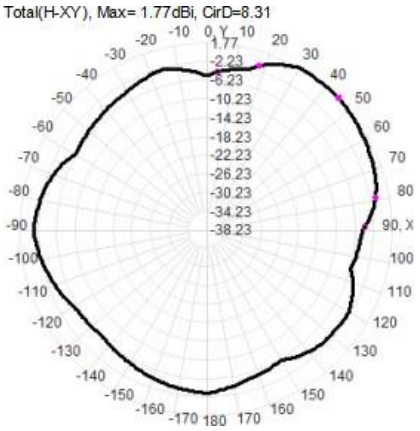


2500MHz

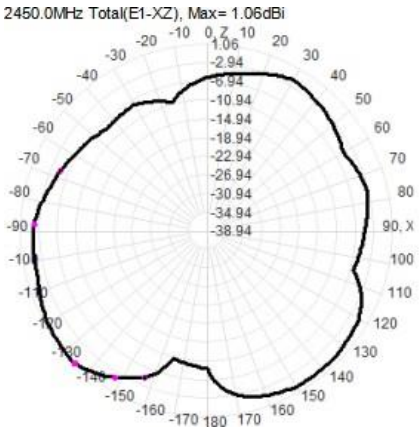
3-2 Antenna 2D Radiation Pattern

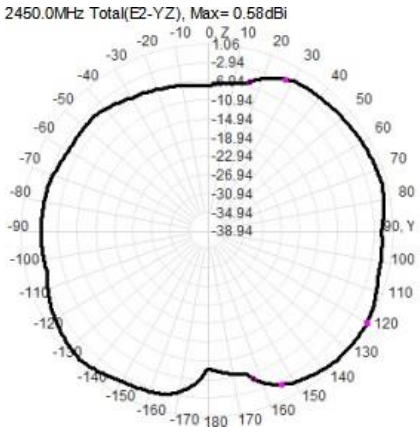


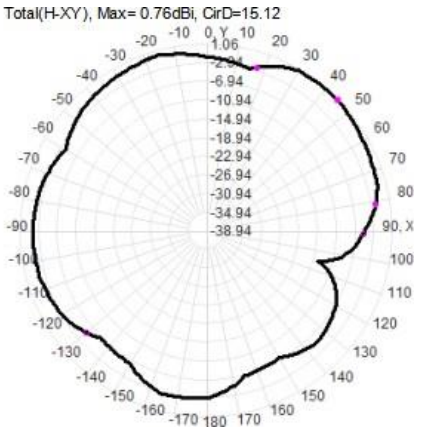




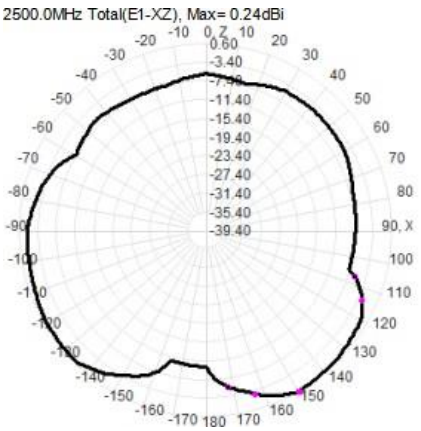
2400MHz

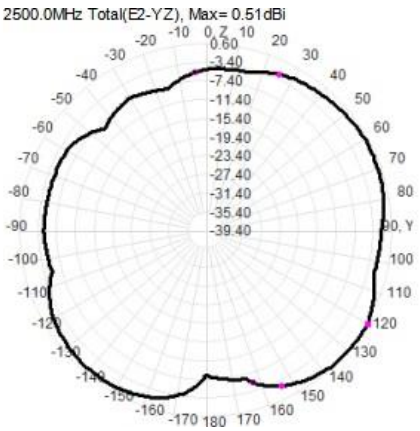


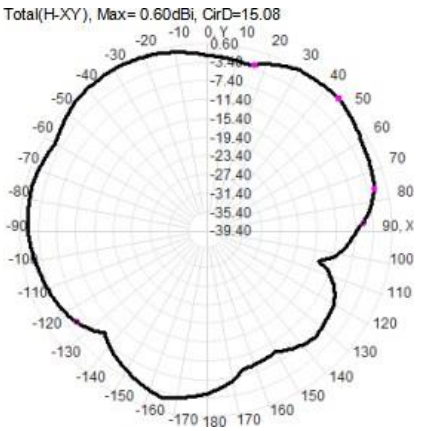




2450MHz







2500MHz

4. Active test data

Item	Measurement	Total
1	TRP	16.81
6	TRP	16.80
11	TRP	16.56
1	TIS(EIRP)	-85.89
6	TIS(EIRP)	-87.10
11	TIS(EIRP)	-86.62

5. Antenna installation diagram

The antenna is placed in the assembly figure: the top of the antenna is flush with the housing, and the antenna is placed in the middle of the housing